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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* WILLIAM B. GREENWALD and RICHARD C. EVANS

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Appeal 2008-004685  
Application 10/692,839  
Technology Center 3600

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Decided: <sup>1</sup> June 30, 2009

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Before WILLIAM F. PATE, III, JENNIFER D. BAHR and  
STEVEN D.A. McCARTHY, *Administrative Patent Judges*.

Opinion for the Board filed by McCARTHY, *Administrative Patent Judge*.

Opinion Dissenting filed by BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304 (2008), begins to run from the Decided Date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or the Notification Date (electronic delivery).

1       The Appellant appeals under 35 U.S.C. § 134 (2002) from the  
2 Examiner's decision finally rejecting claims 1-17 and 20-23 under 35 U.S.C.  
3 § 103(a) (2002) as being unpatentable over Brock and Lauchner; finally  
4 rejecting claims 18, 19, 26, 27 and 31 under § 103(a) as being unpatentable  
5 over Brock, Lauchner and Cheng; and finally rejecting claims 24, 25 and 28-  
6 30 under § 103(a) as being unpatentable over Brock, Lauchner, Cheng and  
7 Klakovich. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

8       We REVERSE.

9       The claims on appeal relate to a telescoping slide assembly of a type  
10 permitting technicians to gain access to a chassis mounted on the assembly  
11 in a rack of computer equipment. (Spec. 5, ll. 3-6). Claim 1 is typical of the  
12 claims on appeal:

- 13  
14               1.     A telescoping slide assembly  
15       comprising:  
16               interconnected load-carrying, intermediate,  
17       and stationary slides movable relative to one  
18       another to extend and retract the load-carrying and  
19       intermediate slides relative to the stationary slide,  
20       the load-carrying slide being formed to include a  
21       keyhole-shaped slot providing an enlarged-  
22       diameter entry and exit portion and a narrow-width  
23       post-retainer portion, the keyhole-shaped slot  
24       being adapted to receive a mounting post coupled  
25       to a piece of equipment to be carried on the load-  
26       carrying slide, and  
27               a post retainer including a base coupled to  
28       the load-carrying slide and an arm formed to  
29       include a retention aperture and being coupled to  
30       the base to move relative to the load-carrying slide  
31       between a slot-opening position lying away from  
32       the load-carrying slide to allow movement of the  
33       mounting post into the enlarged-diameter entry and

1 exit portion of the keyhole-shaped slot and a slot-  
2 closing position receiving the mounting post in the  
3 retention aperture upon movement of the mounting  
4 post from the enlarged-diameter entry and exit  
5 portion into the narrow-width post-retainer portion  
6 of the keyhole-shaped slot.  
7

8 Thus, claim 1 recites a post retainer including an arm formed to  
9 include a retention aperture. The arm is coupled to the base to move relative  
10 to the load-carrying slide between a slot-opening position and a slot-closing  
11 position. In the slot-closing position, the arm receives a mounting post in  
12 the retention aperture. Claims 18, 20 and 23 similarly recite a post retainer  
13 coupled to the load-carrying slide and formed to include a retention aperture  
14 adapted to receive a mounting post. The post is movable relative to the load-  
15 carrying slide between a slot-closing position and a slot-opening position.  
16 The slot-closing position is adapted to retain the mounting post in a slot in  
17 the load-carrying slide and the retention aperture at the same time. Claim 26  
18 recites a post retainer including a body formed to include a retention  
19 aperture. The body is arranged to move from a slot-closing position to a  
20 slot-opening position. The body in the slot-closing position blocks a  
21 mounting post located in a rearward slot in a load-carrying slide and in the  
22 retention aperture from exiting the rearward slot. The remaining claims on  
23 appeal depend ultimately from one of claims 1, 18, 20, 23 and 26.

24 The Examiner concludes that:

25  
26 [I]t would have been obvious to modify the  
27 structure of Brock et al by providing the arm of the  
28 post retainer formed to include a retention aperture  
29 (instead of a raised portion as disclosed by Brock  
30 at al) for the purpose of providing a secured

1 engagement between the mounting post and the  
2 post retainer, as taught by Lauchner et al, since  
3 both teach alternate conventional drawer slide  
4 locking structure, used for the same intended  
5 purpose of locking/holding one member relative to  
6 another, thereby providing structure as claimed.  
7 Further, it would have been obvious to substitute  
8 one known locking structure (i.e., the retention  
9 aperture of Lauchner et al) for another locking  
10 structure (i.e., the raised portion 263 of Brock et  
11 al), because one of ordinary skill in the art would  
12 have been able to carry out such a substitution, and  
13 the results were reasonably predictable.  
14

15 (Ans. 4-5; *accord* Ans. 8). With respect to the rejection of claims 24, 25 and  
16 28-30, as well as the rejection of claim 31, the Examiner does not rely on  
17 either Cheng or Klakovich as providing one of ordinary skill in the art  
18 reason to make this substitution. (*See* Ans. 5-6 and 9-11 (relying on “Brock  
19 et al., as modified” in view of Lauchner)).

20 This appeal turns on one issue:

21 Have the Appellants shown that the Examiner failed to  
22 articulate reasoning with some rational underpinning sufficient  
23 to support the conclusion that the teachings of Brock and  
24 Lauchner would have provided one of ordinary skill in the art  
25 reason to substitute a retention aperture for a raised portion in a  
26 lock arm, as taught by Brock, for locking a mounting pin  
27 projecting from a chassis in place on a load-carrying slide?  
28 (*See* App. Br. 7-8, 10 and 11-12; Reply Br. 1.)

29 Brock discloses a mounting apparatus for mounting a computer server  
30 in a server rack structure. (Brock, col. 1, ll. 52-54). Brock’s mounting

1 apparatus includes telescoping portions *14*. (Brock, col. 3, ll. 58-60).  
2 Figures 1A and 14 of Brock depict each telescoping portion *14* as having  
3 relatively movable intermediate and load-carrying slides. Brock further  
4 discloses forming L-shaped slots *254* in the inner surfaces of the load-  
5 carrying slides. (Brock, col. 7, ll. 8-13).

6 Brock discloses riveting one end of a lock arm *256* to one of the load-  
7 carrying slides so that the other end of the lock arm *256* extends across one  
8 of the L-shaped slots *254*. The lock arm *256* has a raised portion *263*  
9 defining an inclined surface extending into the L-shaped slot *254* and toward  
10 the riveted portion of the lock arm *256*. (Brock, col. 7, ll. 28-34 and Figs.  
11 16-17).

12 Brock discloses coupling the chassis *250* of one of the computer  
13 servers to the load-carrying slide by means of mounting pins *252*. Each  
14 mounting pin *252* has a stem portion *253* and a head portion *255*. (Brock,  
15 col. 7, ll. 3-7). Brock discloses positioning the chassis *250* of the computer  
16 server over the load-carrying slides so that the mounting pins *252* on the  
17 chassis *250* align with transversely extending portions *262* of the L-shaped  
18 slots *254*. Brock further discloses lowering the chassis onto the load-  
19 carrying slide so that the mounting pins extend into the L-shaped slots *254*.  
20 Brock further discloses moving the chassis rearwardly to move the mounting  
21 pins *252* into longitudinally extending portions *260* of the L-shaped slots  
22 *254*. (Brock, col. 7, ll. 14-22). Once the mounting pins *256* move into  
23 position in the longitudinally extending portions *260* of the adjacent L-  
24 shaped slots *254*, the raised portion *263* locks the adjacent mounting pin *252*  
25 in place in the L-shaped slot *254*. (Brock, col. 7, ll. 35-44).

1       Lauchner discloses an assembly including a spring portion *100*  
2 attached to a first member *105* of a telescopic quick disconnect slide. As  
3 shown in Fig. 4 of Lauchner, the spring portion *100* takes the form of a leaf  
4 spring. A base or mounting portion *115* of the spring portion *100* appears to  
5 be riveted as at *120* to the first member *105* while a ramp portion or arm *112*  
6 extends from the base portion *115*. (See Lauchner, col. 3, ll. 30-38 and 52-  
7 54).

8       A second member *205* of Lauchner's telescopic quick disconnect slide  
9 includes a tab portion *210* acting as a raised catch capable of stopping  
10 motion of the first member *105*. (Lauchner, col. 4, ll. 21-25). The ramp  
11 portion or arm *112* of Lauchner's spring portion *100* includes a slot portion  
12 *114*. (Lauchner, col. 3, l. 66 – col. 4, l. 2). Engagement between the tab  
13 portion *210* and the slot portion *114* removably couples the first and second  
14 members *105*, *205* to stop the sliding motion of the first member *105* relative  
15 to the second member *205*. (Lauchner, col. 6, ll. 26-35).

16       “[W]hen a patent claims a structure already known in the prior art that  
17 is altered by the mere substitution of one element for another known in the  
18 field, the combination must do more than yield a predictable result.” *KSR*  
19 *Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007). Modifying Brock's  
20 structure to meet the claim limitations would have required more than the  
21 mere substitution of a retention aperture for Brock's raised portion *263*,  
22 however.

23       As the Appellants point out (App. Br. 7-8; Reply Br. 1), one of  
24 ordinary skill in the art could not have substituted a slot similar to that  
25 disclosed by Lauchner for Brock's raised portion *263* without also  
26 lengthening the adjacent mounting pin *252* so that at least the head portion

1 255 of the mounting pin 252 extended into the slot to lock the chassis 200 in  
2 place. Lengthening the adjacent mounting pin 252 likely would require  
3 further modifications to the L-shaped slot 254 in the load-carrying slide and  
4 to the lock arm 256 in order to accommodate the increased length of the pin  
5 252. Where, as here, the proposed modification to the assembly of the  
6 primary reference would require a substantial reconstruction and redesign of  
7 the elements shown in the primary reference, the modification is likely  
8 unobvious. *See In re Ratti*, 270 F.2d 810, 813 (CCPA 1959). The  
9 Examiner's reasoning that it would have been obvious to substitute a slot  
10 similar to Lauchner's slot portion 114 for Brock's raised portion 263 lacks  
11 rational underpinning and does not suffice to support the conclusion of  
12 obviousness. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

13 Therefore, the Appellants have shown that the Examiner failed to  
14 articulate reasoning with some rational underpinning sufficient to support  
15 the conclusion that the teachings of Brock and Lauchner would have  
16 provided one of ordinary skill in the art reason to substitute a retention  
17 aperture for a raised portion in a lock arm, as taught by Brock, for locking a  
18 mounting pin projecting from a chassis in place on a load-carrying slide.  
19 The Appellants have shown that the Examiner erred in rejecting claims 1-17  
20 and 20-23 under § 103(a) as being unpatentable over Brock and Lauchner.

21 The Examiner does not point to any teaching or suggestion in either of  
22 the secondary references, Cheng or Klakovich, that would have provided  
23 one of ordinary skill in the art reason to make this substitution. Therefore,  
24 the Appellants have shown that the Examiner erred in rejecting claims 18,  
25 19, 26, 27 and 31 under § 103(a) as being unpatentable over Brock,



Lauchner and Cheng; and in rejecting claims 24, 25 and 28-30 under §  
103(a) as being unpatentable over Brock, Lauchner, Cheng and Klakovich.

DECISION

We REVERSE the decision of the Examiner to reject claims 1-31.

REVERSED

1   BAHR, *Administrative Patent Judge*, DISSENTING.

2           I cannot join in the majority opinion. Quite simply, I do not share the  
3   view of my colleagues that the modifications of Brock required to  
4   accommodate the substitution of one conventional slide locking mechanism  
5   for another, as proposed by the Examiner (Ans. 4-5), amount to “substantial  
6   reconstruction and redesign of the elements shown in the primary reference.”  
7   Rather, “lengthening the adjacent mounting pin 252 so that at least the head  
8   portion 255 of the mounting pin 252 extended into the slot to lock the  
9   chassis 200 in place” and “further modifications to the L-shaped slot 254 in  
10   the load-carrying slide and to the lock arm 256 in order to accommodate the  
11   increased length of the pin 252” strike me as relatively simple and  
12   predictable mechanical modifications, well within the technical grasp of a  
13   person of ordinary skill in the art.

14           In order to support a conclusion of obviousness, all of the features of  
15   the secondary reference need not be bodily incorporated into the primary  
16   reference. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Moreover, the  
17   artisan is not compelled to blindly follow the teaching of one prior art  
18   reference over the other without the exercise of independent judgment. *Lear*  
19   *Siegler, Inc. v. Aeroquip Corp.*, 733 F.2d 881, 889 (Fed. Cir. 1984).

20           “A person of ordinary skill is also a person of ordinary creativity, not  
21   an automaton.” *KSR*, 550 U.S. at 421. An improvement that is nothing  
22   more than the predictable use of prior art elements according to their  
23   established functions is likely to be obvious. *Id.* at 417. The majority has  
24   not convinced me that the modification of Brock proposed by the Examiner  
25   is anything more than that.

1       The majority states that “[t]he Examiner’s reasoning that it would  
2       have been obvious to substitute a slot similar to Lauchner’s slot portion 114  
3       for Brock’s raised portion 263 lacks rational underpinning and does not  
4       suffice to support the conclusion of obviousness.” I do not agree. The  
5       Examiner points out that Lauchner and Brock teach alternative conventional  
6       drawer slide locking structures, used for performing the same function of  
7       locking/holding one member relative to another. Ans. 5. Neither the  
8       majority nor Appellant has specifically contested that finding. As noted  
9       above, a modification, such as the one proposed by the Examiner, which is  
10      nothing more than the predictable use of prior art elements according to their  
11      established functions, is likely to be obvious.

12      The majority appears to require the Examiner to point to a “teaching  
13      or suggestion in [the applied references] that would have provided one of  
14      ordinary skill in the art reason to make” the proposed substitution.  
15      However, the Supreme Court has stated that a rigid insistence on teaching,  
16      suggestion, or motivation is incompatible with its precedent concerning  
17      obviousness. *KSR*, 550 U.S. at 419. Rejections on obviousness grounds  
18      must be supported by “some articulated reasoning with some rational  
19      underpinning” to combine the known elements in the manner required in the  
20      claim at issue. *Id.* at 418. However, “the analysis need not seek out precise  
21      teachings directed to the specific subject matter of the challenged claim, for  
22      a court can take account of the inferences and creative steps that a person of  
23      ordinary skill in the art would employ.” *Id.* The Examiner articulates a  
24      reason for the substitution supported by some rational underpinning in the  
25      paragraph bridging pages 4 and 5 of the Answer. Inasmuch as the majority’s

1 analysis has not persuaded me that the rejections should be reversed, I  
2 respectfully dissent.

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8 mls

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